

Date: Thursday, 31/07/2008 12:18:19 PM
 User: Julie Lecocq

Process Sheet

SOTI

Customer	: CU-DAR001 Dart Helicopters Services			Drawing Name	: FLANGE ASS'Y		
Job Number	: 40856			Part Number	: D3651043		
Estimate Number	: 13032			Drawing Number	: D3651 REV.B		
P.O. Number	:			Project Number	: N/A		
This Issue	: 31/07/2008	S.O. No.	:	Drawing Revision	: B		
Prsht Rev.	: NC			Material	:		
First Issue	: //	Type	: SMALL /MED FAB	Due Date	: 07/08/2008	Qty:	Um: Each
Previous Run	: 39935						
Written By	:						
Checked & Approved By	: JLP 08-8-08						
Comment	: Est Rev:A New Issue 07-09-27 DD verified by: EC						
	: Est Rev:B ECN 1113P 08-01-22 DD						
	: Est Rev:C ecn1162 08-04-02 DD verified by: EC						

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	M304S26GA	304/316 0.018 SHEET
Comment: Qty.: 0.2573 sf(s)/Unit Total : 1.0290 sf(s) 304/316 SS sheet 26 ga (0.018" thick) Batch: <u>108415</u> HB 8-8-13		
(FOR D3651-7)		
2.0	WATER JET	FLOW WATER JET
Comment: FLOW WATER JET 1-Cut as per Dwg D3651 (D3651-7) Dwg Rev: <u>B</u> HB 8-8-13 Prog Rev: <u>B</u>		
2-Deburr if necessary IDENTIFY AS D3651-7 <u>HB 8-8-13</u>		
3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
<u>HB 8-8-13</u>		
Comment: INSPECT PARTS AS THEY COME OFF MACHINE		
4.0	QC8	SECOND CHECK
<u>S 08/08/13 (t6)</u>		
Comment: SECOND CHECK		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLANGE ASS'Y

Job Number: 40856

Part Number: D3651043

Job Number:



Seq. #: Machine Or Operation:

Description :

5.0 M304S26GA 304/316 0.018 SHEET



Comment: Qty.: 0.2573 sf(s)/Unit Total : 1.0290 sf(s)

304/316 SS sheet 26 ga (0.018" thick)

Batch: 165591

RB 8-8-14

(FOR D3651-5)

6.0 WATER JET FLOW WATER JET



Comment: FLOW WATER JET

1-Cut as per Dwg D3651 (D3651-5)

Dwg Rev: ~~RB~~ B
Prog Rev: ~~RB~~ B

RB 8-8-14

(6)

2-Deburr if necessary

Identify as D3651-5

RB 8-8-14

7.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



RB 8-8-14

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

8.0 QC8 SECOND CHECK



1608-18 (6)

Comment: SECOND CHECK

9.0 BRAKE NC NC BRAKE



Comment: NC BRAKE

Form D3651-5 and D3651-7 as per Dwg D3651

RB 08/09/24 (6)

10.0 QC5 INSPECT WORK TO CURRENT STEP



5 08/09/24 (46)

Comment: INSPECT WORK TO CURRENT STEP

11.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



CP 08-09-25 (46)

Comment: LARGE FABRICATION RESOURCE 1

Weld assembly as per dwg D3651

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLANGE ASS'Y

Job Number: 40856

Part Number: D3651043

Job Number:



Seq. #: Machine Or Operation:

Description :

12.0 QC9

VISUAL WELDING INSPECTION



PD 08-09-25 (6)

Comment: VISUAL WELDING INSPECTION

13.0 QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

14.0 D36513

Base



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

BASE B37165 (3)

B41983 (5)

SB

15.0 MS20427M33

Rivet



Comment: Qty.: 16.0000 Each(s)/Unit Total: 64.0000 Each(s)

Rivet M109371

128.00

FF 08/09/29

16.0 MS210603K

Nut Plate



Comment: Qty.: 8.0000 Each(s)/Unit Total: 32.0000 Each(s)

Nut Plate

M108456x(46/M109371x18

FF 08/09/29

17.0 CR3523401

RIVET



Comment: Qty.: 57.0000 Each(s)/Unit Total: 228.0000 Each(s)

RIVET

M107063(x50)/m109405 (64)

FF 08/09/30

18.0 SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble as per dwg D3651

FF 08/09/30
FF 08/09/29

19.0 QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S08/09/30 (72)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action - Section B			Verification - Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 31/07/2008 12:18:19 PM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FLANGE ASS'Y

Job Number: 40856

Part Number: D3651043

Job Number:



Seq. #: Machine Or Operation:

Description :

20.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and stock

Location: CA

8B 08/09/30

21.0 QC21

FINAL INSPECTION/W/O RELEASE



08/10/02 HJ

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



-MF 08-09-30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	40854
Description: Bottom Flange	Part Number:	D3651-7
Inspection Dwg: D3651	Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Measured by: HB	Audited by: S	Prototype Approval: N/A
Date: 9-8-13	Date: 08/08/13	Date: N/A

Rev	Date	Change	Revised by	Approved
A	08.04.17	New Issue	P/O D3651-043	KJ/DD



DART AEROSPACE LTD	Work Order:	40856
Description:	FLANGE ASS'Y	Part Number:
Inspection Dwg:	D3651-5 Rev: B	Page 1 of 1

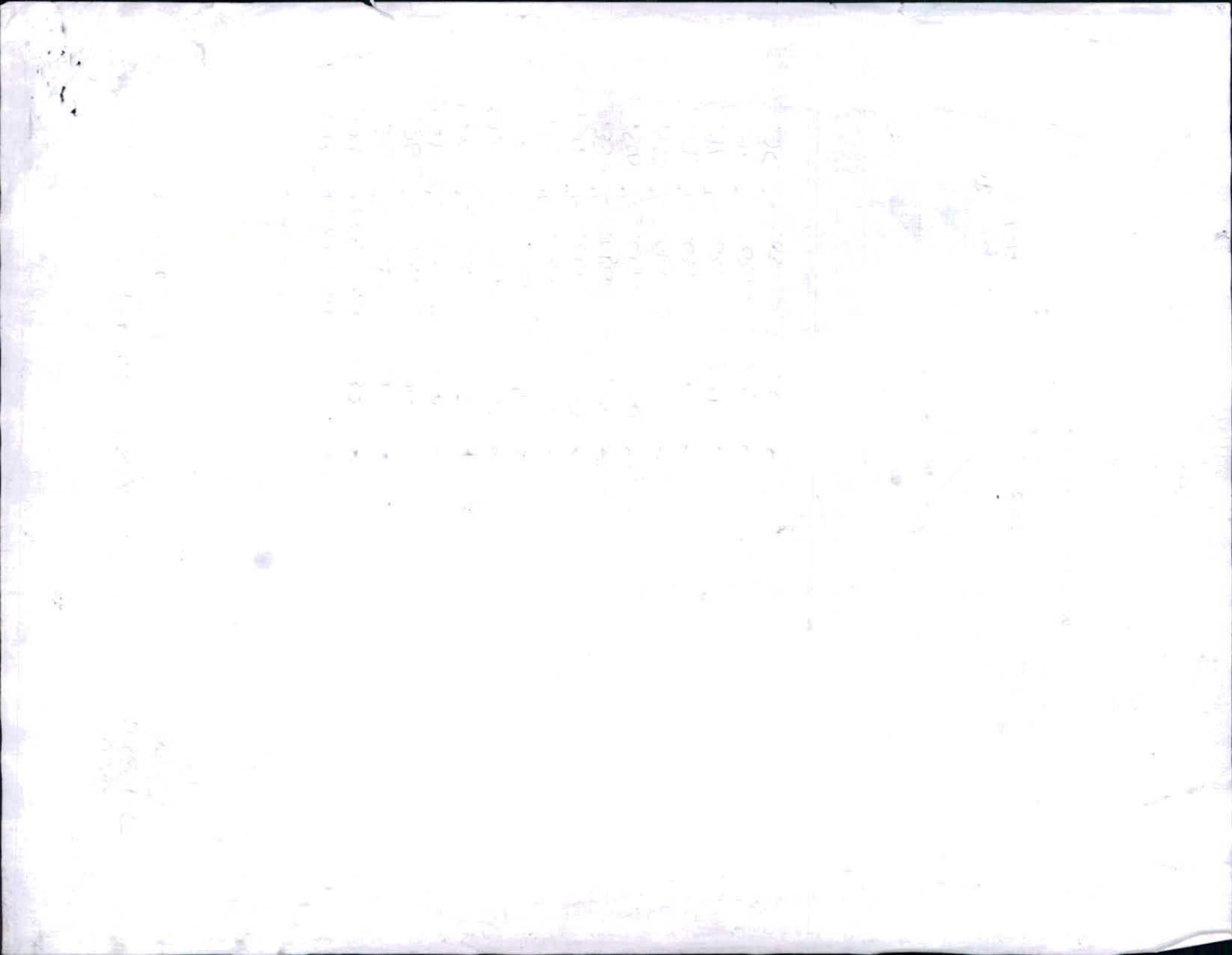
FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
∅ .098	+.064-.001	.100	✗			
∅ .129	+.005-.001	.132	✗			
.26	+/- .030	.26	*			
.26	+/- .030	.26	✗			
.21	+/- .030	.225	✗			
1.66	+/- .030	1.656	*			
3.16	+/- .030	3.155	✗			
.36	+/- .030	.36	✗			
.33	+/- .030	.33	✗			
.500	+/- .010	.502	*			
.33	+/- .030	.33	✗			
.500	+/- .010	.500	✗			
.450	+/- .010	.451	✗			
.19	+/- .030	.186	✗			
.98	+/- .030	.979	*			
.48	+/- .030	.481	*			
.25	+/- .030	.25	✗			

Measured by: <u>RB</u>	Audited by: <u>/</u>	Prototype Approval: <u>N/A</u>
Date: <u>8-8-14</u>	Date: <u>06-08-18</u>	Date: <u></u>

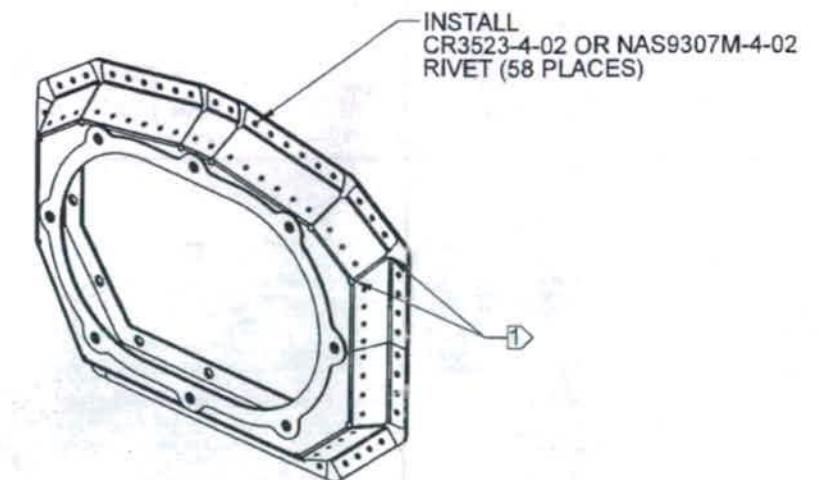
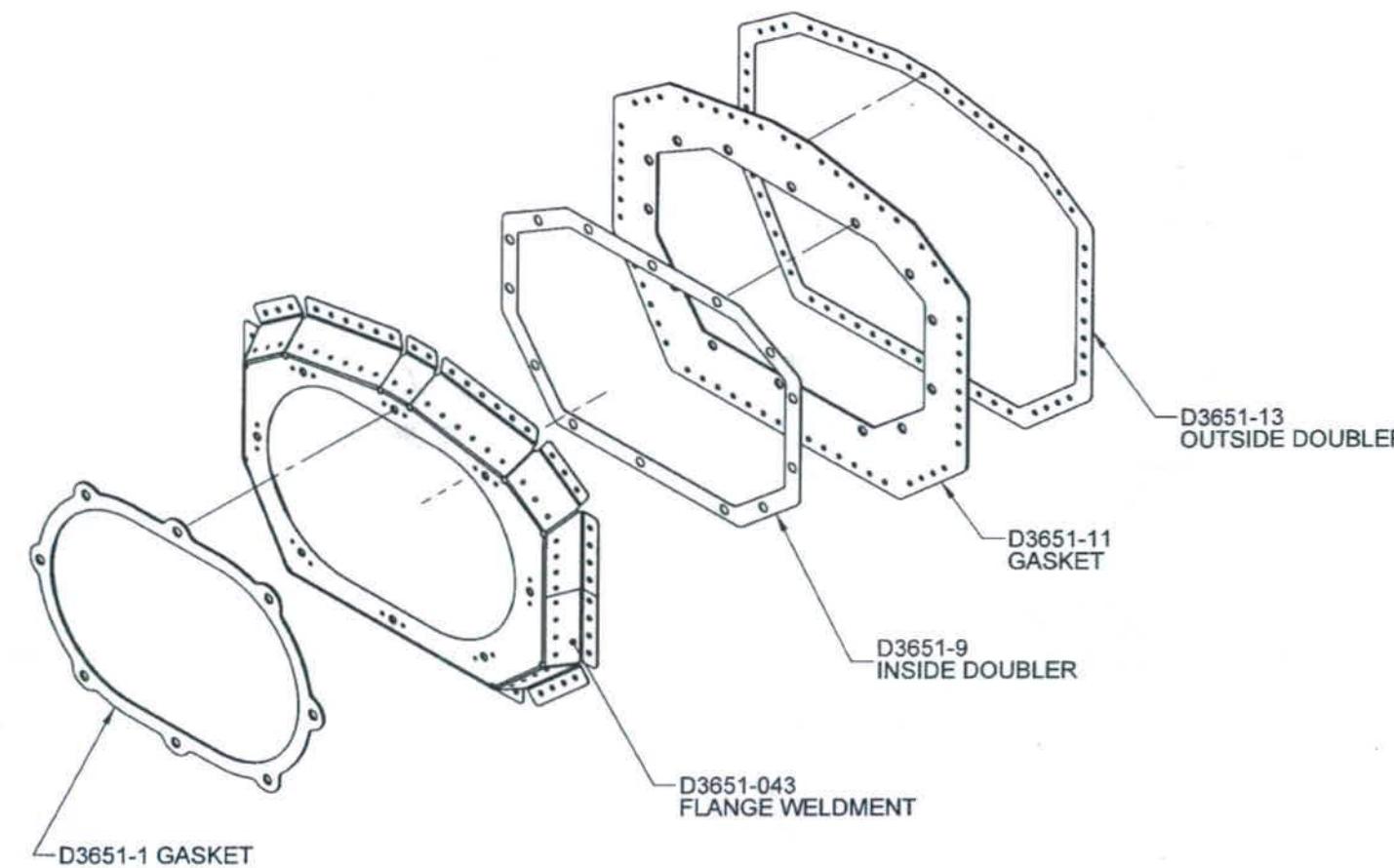
Rev	Date	Change	Revised by	Approved
A		New Issue	10 D3651-04-3	KJ/JLM



8 7 6 5 4 3 2 1

D

D



PART LIST

QTY	PART NUMBER	DESCRIPTION
1	D3651-041	AFT BASE ASSEMBLY
1	D3651-043	FLANGE WELDMENT
1	D3651-1	GASKET
1	D3651-9	INSIDE DOUBLER
1	D3651-11	GASKET
1	D3651-13	OUTSIDE DOUBLER
58	CR3523-4-02 or NAS9307M-4-02	RIVET

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NO. ~~40856~~

RELEASER
08.03.27 MWD

D3651-041 AFT BASE ASSEMBLY

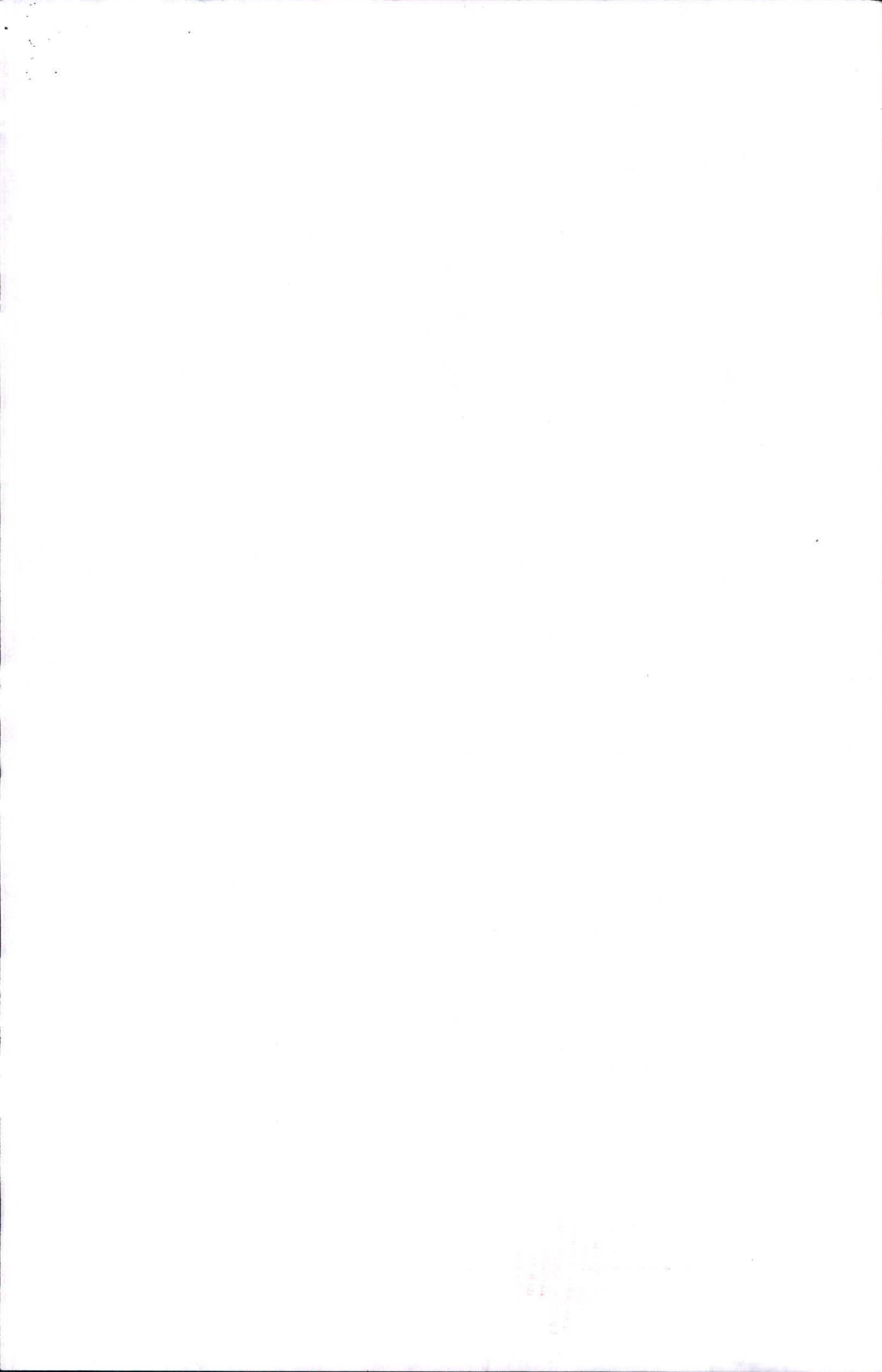
D3651-041 NOTES:

- 1) SEAL ALL MATING SURFACES AND GAPS USING PROSEAL 700 FIRE WALL SEALANT
- 2) INSTALL D3651-1 USING 3M HIGH PERFORMANCE CONTACT ADHESIVE 1357
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.6 lbs

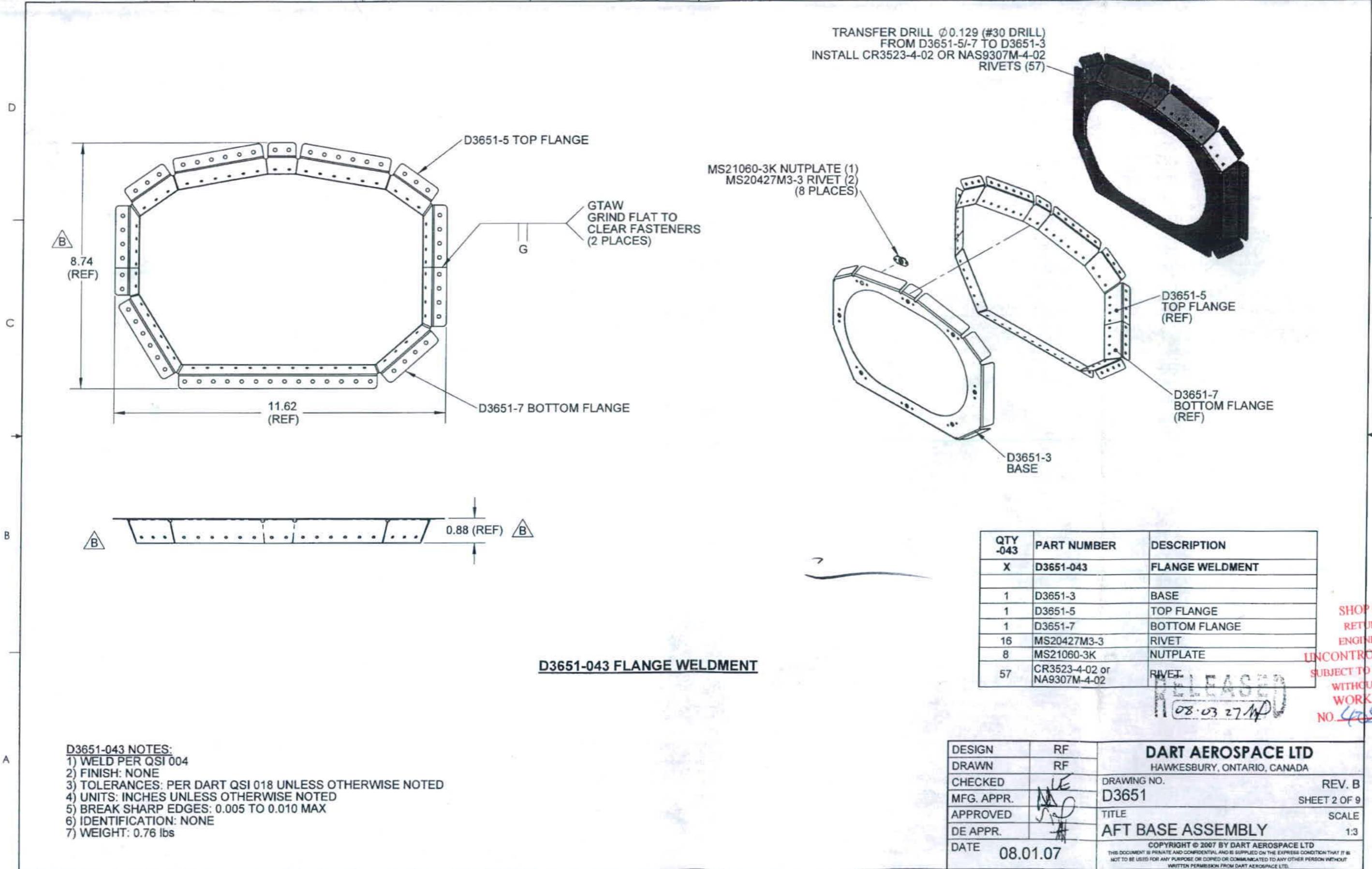
B	SHEET 1: GENERAL UPDATE SHEET 2: 8.74 WAS 8.50; 0.88 WAS 0.98; REMOVED ANGLE SHEETS 4, 5, 6, 8 & 9; GENERAL DIMENSIONAL UPDATE SHEET 7: 5.514 WAS 5.504		RF	08.01.07
A	NEW ISSUE		RF	07.11.07
REV.	DESCRIPTION			BY DATE
DESIGN	RF			DART AEROSPACE LTD
DRAWN	RF			HAWKESBURY, ONTARIO, CANADA
CHECKED	LE			DRAWING NO.
MFG. APPR.	D3651			REV. B
APPROVED	MM			SHEET 1 OF 9
DE APPR.	MM			TITLE
DATE	08.01.07			SCALE
				1:4
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8 7 6 5 4 3 2 1

A



8 7 6 5 4 3 2 1



8 7 6 5 4 3 2 1



8 7 6 5 4 3 2 1

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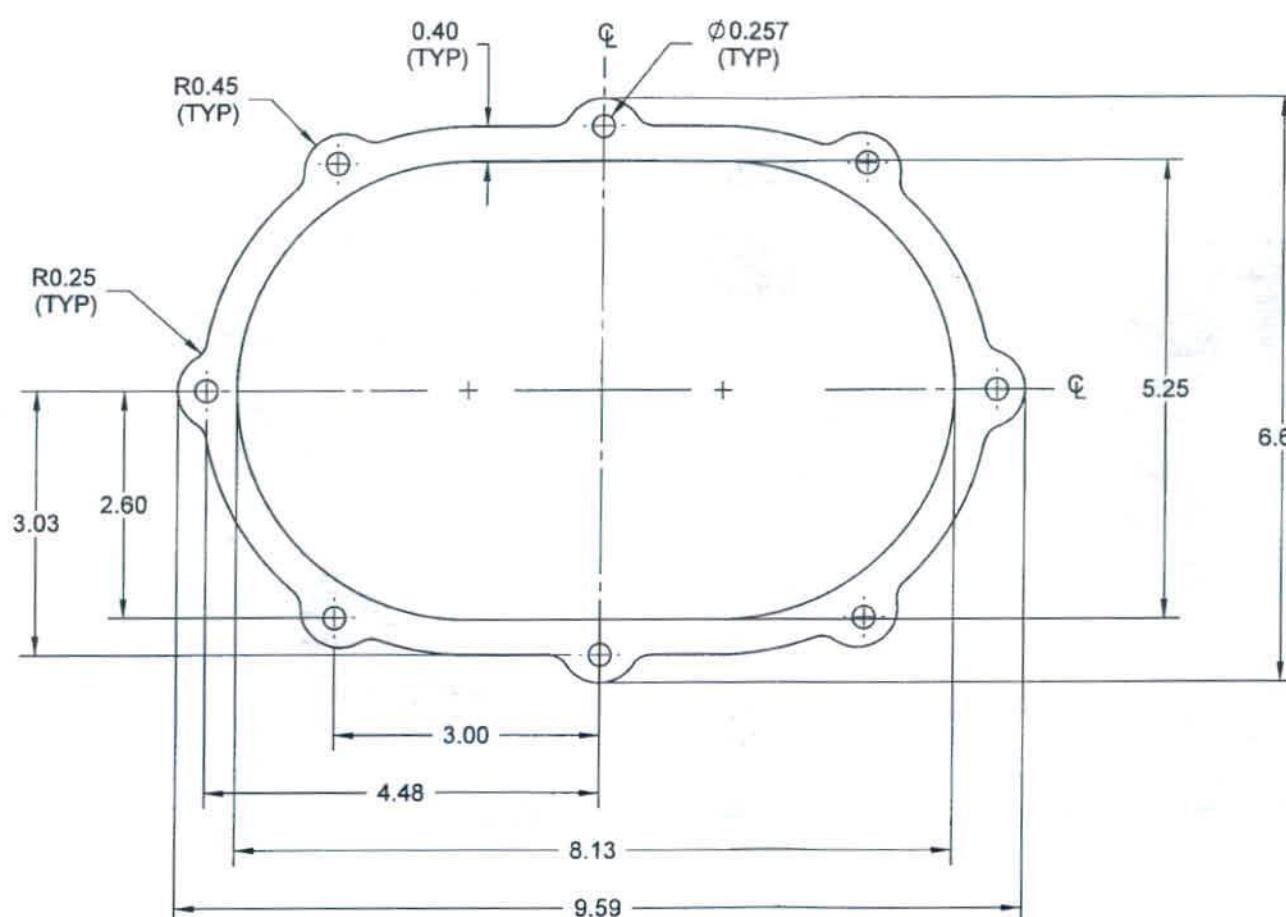
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D3651-1 GASKET

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08-03-27

NOTES:

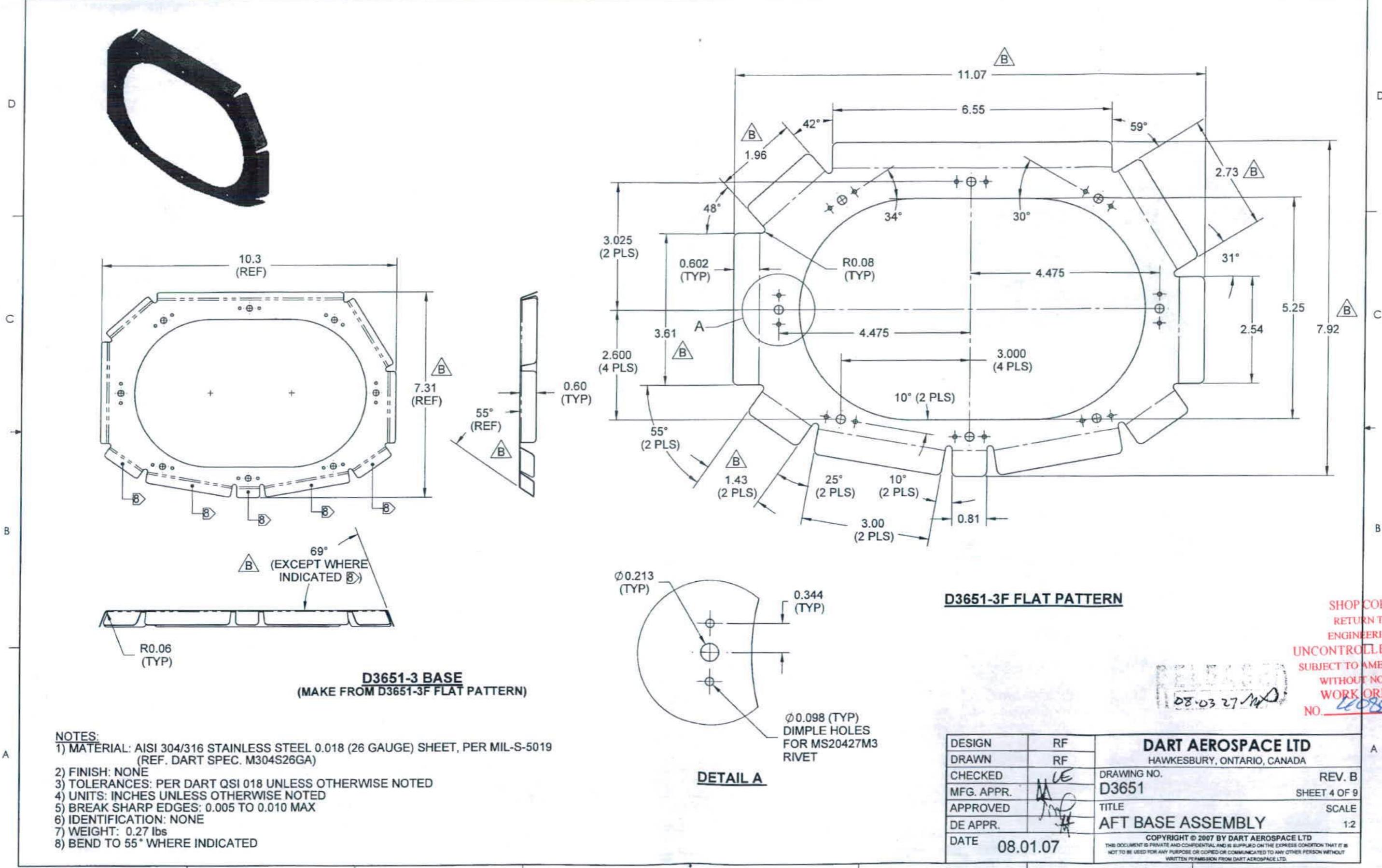
- 1) MATERIAL: THERMO-CHEM P/N G-89, (REF. 0.060 THICK)
POSSIBLE SUPPLIER: A.R. THOMSON GROUP
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) PART IS SYMMETRIC ABOUT \varnothing
- 8) WEIGHT: 0.09 lbs

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MFG. APPR.	<i>je</i>	D3651	SHEET 3 OF 9
APPROVED	<i>je</i>	TITLE	SCALE
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DATE	08.01.07	1:2	

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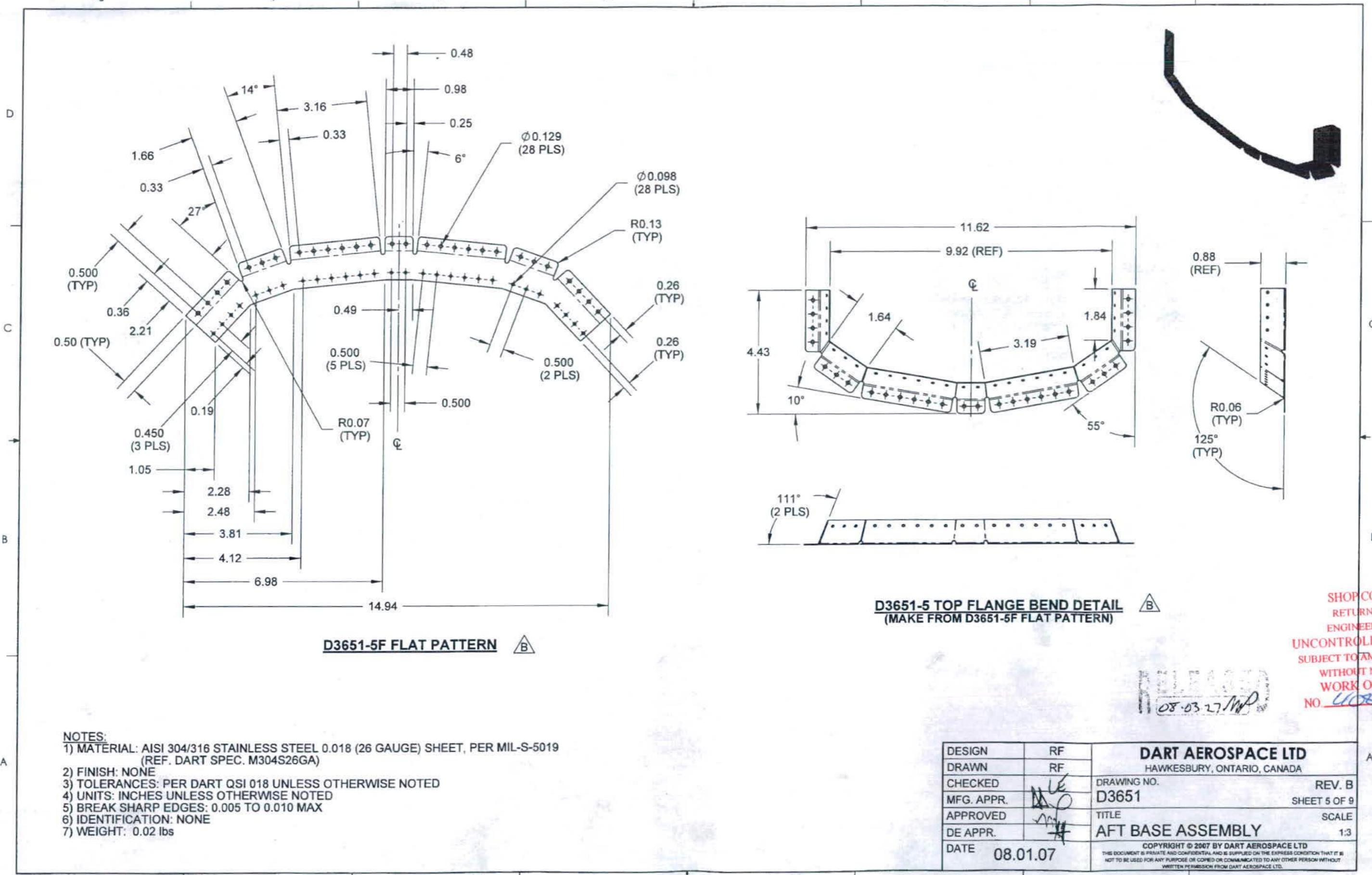


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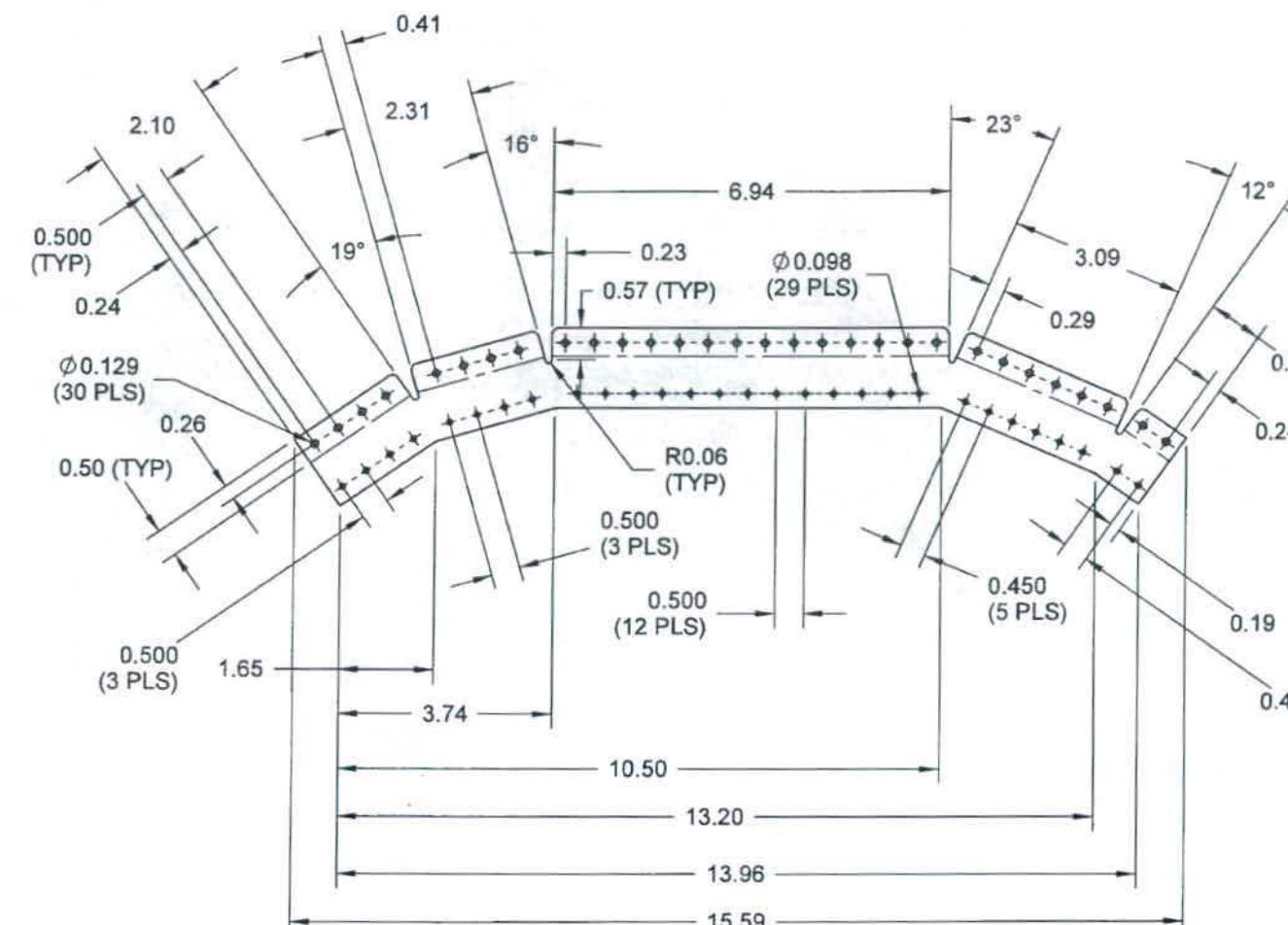
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8 7 6 5 4 3 2 1

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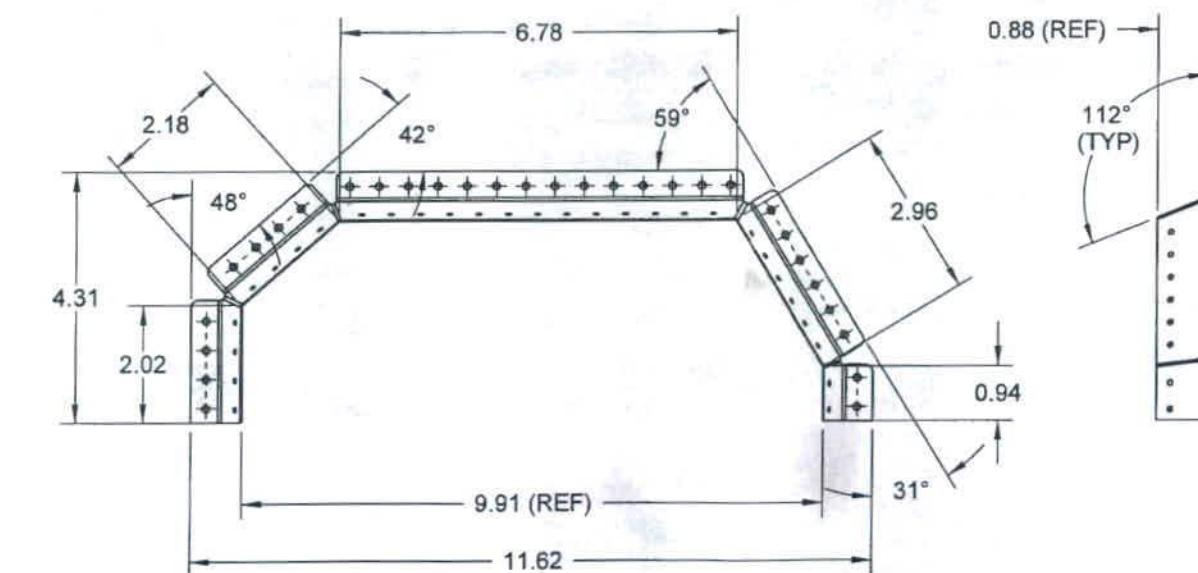


D3651-7F FLAT PATTERN



NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 (26 GAUGE) SHEET, PER MIL-S-5019 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.02 lbs



D3651-7 BOTTOM FLANGE BEND DETAIL
(MAKE FROM D3651-7F FLAT PATTERN)

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08-03-27

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APPROVED	LE	D3651
DE APPR.	LE	SHEET 6 OF 9
DATE	08.01.07	TITLE
		AFT BASE ASSEMBLY
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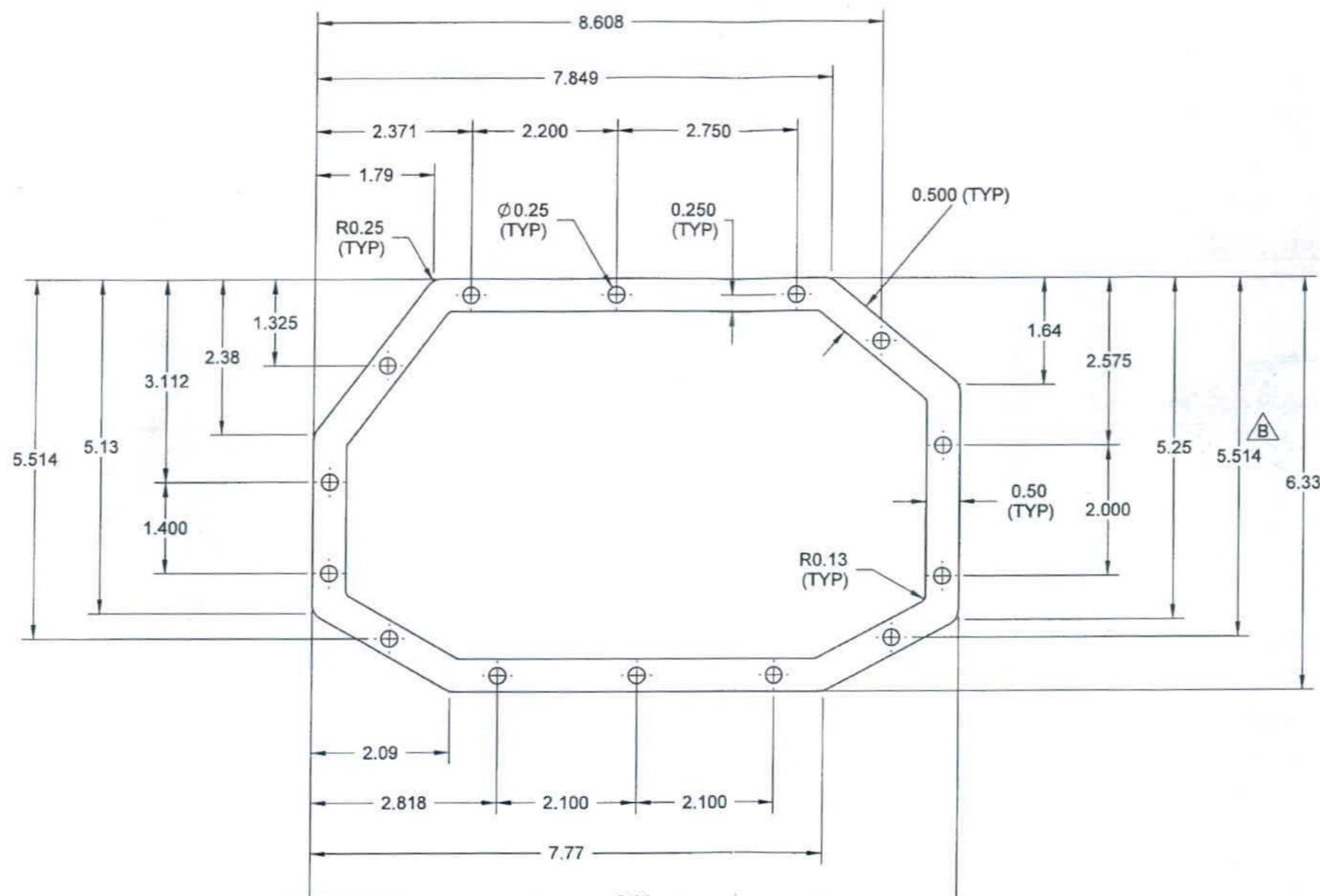
A

D

C

B





D3651-9 INSIDE DOUBLEF

NOTES

- NOTES:**

 - 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 (26 GAUGE) SHEET, PER MIL-S-501
(REF. DART SPEC. M304S26GA)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.07 lbs

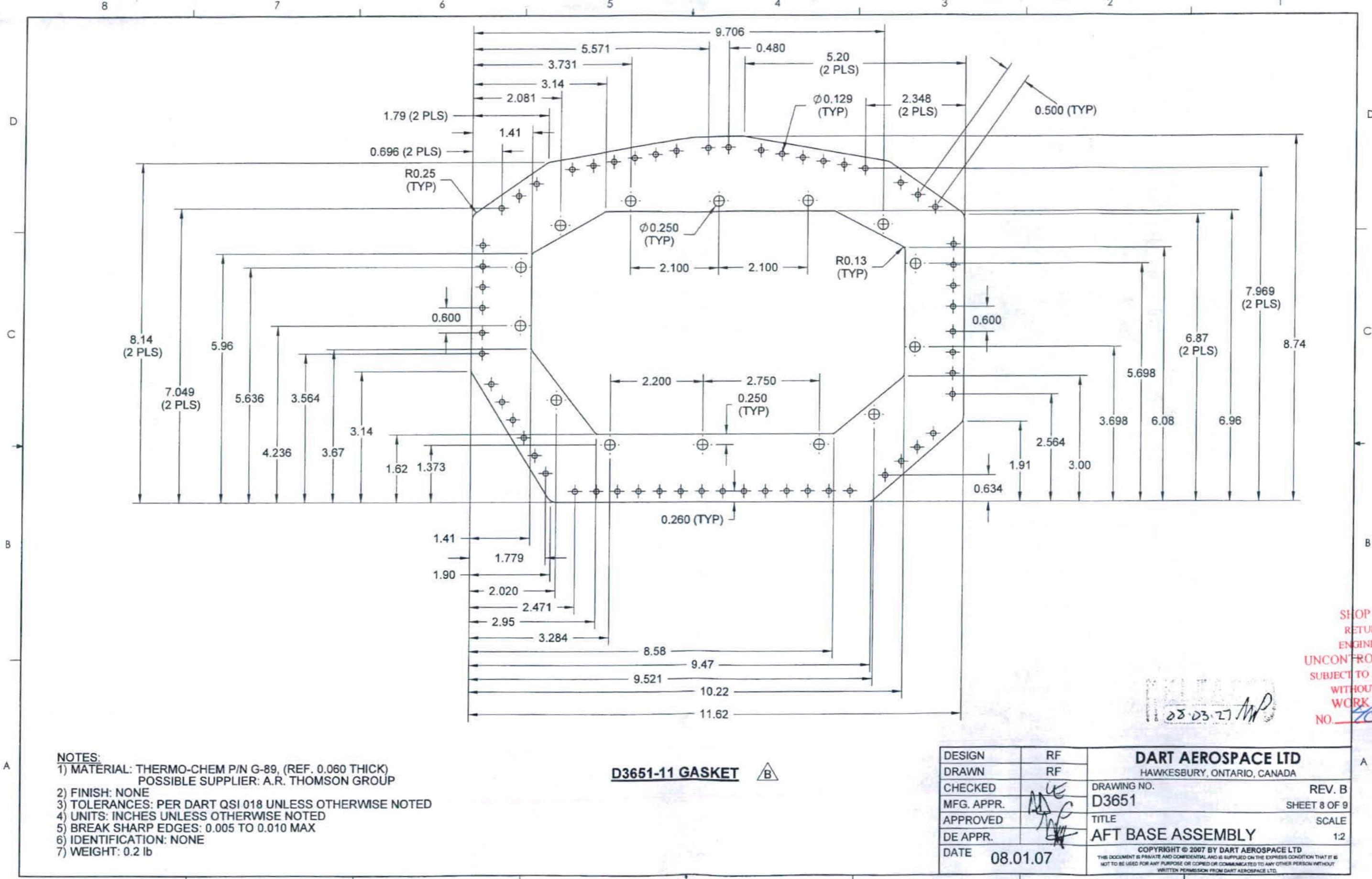
08.03.27 MP

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CHECKED	<i>WE</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>WS</i>	D3651	SHEET 7 OF 9
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NOTES

- 1) MATERIAL: THERMO-CHEM P/N G-89, (REF. 0.060 THICK)
POSSIBLE SUPPLIER: A.R. THOMSON GROUP
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.2 lb

D3651-11 GASKET

B

DESIGN	RF	DART AEROSPACE LTD	
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CHECKED	<i>VE</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>AS</i>	D3651	SHEET 8 OF 9
APPROVED	<i>WC</i>	TITLE	SCALE
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3

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